



WOMEN THRIVE IN MALE-DOMINATED NAVUSO AGRICULTURE SCHOOL



Makelesi (middle) with her two assistants at the calf rearing shed during feeding time.

The fact that they are women with a passion for farming; not at all concerned that they will be in a male-dominated learning space; in fact that spurred them on to sign up for lessons at the Navuso Agriculture Technical Institute (NATI).

Lavenia Paulina and Makelesi Lailai Ratuvaga are both second year students undertaking Certificate in Agriculture Level IV at NATI in Navuso, Naitasiri.

Thriving in a male dominated environment has borne fruit with the pair becoming supervisors of two of the Institute's ten enterprises that turns their classroom learning into practical applications.

Lavenia is the supervisor for the Piggery section while Makelesi manages the Calf-rearing section.

Makelesi, originally from Bulileka in the Tikina of Labasa, Macuata is no stranger to farming as she grew up in a family that loved to farm.

"We moved to various places because of my dad's pastoral work as a church minister for the Methodist Church. We have livestock, yaqona, and crops back home in Bulileka," she said.

Makelesi who is also fondly known as 'Rosi', whilst growing up wanted to be a Physical Education teacher. She even went as far as starting her tertiary studies at the Fiji National University,

until a newspaper advertisement by NATI caught her eye.

"What I read completely changed my mind. I made the decision to rekindle my passion for farming and the idea of leasing my own Mataqali land for farming appealed to me," she said.

"I grew up to loving to farm and know how sweet farming was after we sold our produce."

Following approval from her parents, 'Rosi' enrolled and almost immediately began thriving in an environment that was familiar to her. However, what excited was learning new things.

Her daily work at the Calf Rearing shed along with three other Year One students who were all males was to over-see the welfare of the calves.

"Rearing a newborn calf can be extremely challenging and requires patience and commitment. We have to keep them well fed and free of sickness," Rosi said.

Her team tends to the weaning, feeding, dehydration, and controlling diarrhoea to 35 calves. It is important that the calves are kept comfortable with a sick bay nearby in case the animals fall sick.

"It is enjoyable but I prefer to concentrate on yaqona as my main crop after I graduate because the weather in Bulileka is suitable for yaqona and not dairy."

Her fellow student, Lavenia, 25, is an expert in birthing piglets which is similar to her dream job of being a

nurse.

"Although I was accepted into nursing school, it was through the conviction of the Holy Spirit that I not take that up. Instead I was led to focus on something similar to looking after people, which was to look after livestock."

Into her third month as a supervisor in the Piggery section looking after a total stock of 28, Lavenia has assisted in birthing eight sows.

Included in their daily tasks, Lavenia and her team keep an eye out on clipping needle teeth, feeding, docking of tails, administering iron and other medications, identifying piglets for castration.

"When the pigs are in heat, our utmost concentration and note taking

is at its highest. But we enjoy every bit of the hands-on-training that's provided to us by NATI," she said.

"I am grateful to what the school has taught me over the years. While I await graduation I am learning as much as I can about the different enterprises. It is very interesting."

Lavenia plans to venture into poultry farming in Nageledamu, Tailevu after graduating. As part of the graduation package she will receive a lease agreement that will allow her start off in making farming a business.

The exposure and knowledge NATI has and continues to instill in the ladies is sure to take them a long way into becoming successful agriculture entrepreneurs.



Sakaraia Neidiri (left), Lavenia (middle), Pauliasi Ratu (right) attending to newborn piglets

HOW TO CARE FOR NEW BORN CALF



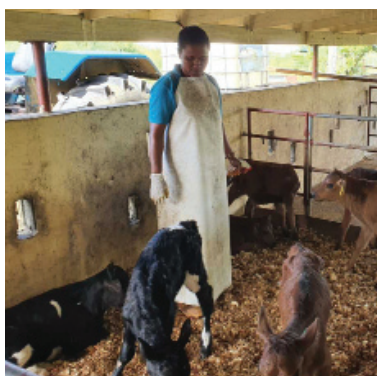
The golden hour: The first hour after calving is the most critical period in the entire life of a new born calf

Important Points to Remember

- As soon as the calf is born, clean nostrils and mouth which helps the calf breathe better and help prevent future breathing problem.
- Separate the calf from the mother after birth so that the mother doesn't lick the calf - this is to reduce direct contact with the Dam to reduce the probability of Tuberculosis (T.B) in calves.
- Clean/wipe the calf with a clean dry towel to remove mucus and after birth fluids.
- Treat the navel cord - apply iodine (spray) and apply naval clip on the cord to avoid entry of bacteria through the naval cord opening. A poorly maintained navel is the gateway to serious infection.
- Weigh the calf and record (I.D of the Dam, Date, Time, Sex, Breed, Bred through.)
- Allow it to rest on warm bedding - well ventilated and secured shed.
- Milk out the colostrum and pasteurize.
- Feeding colostrum - follow the golden rule. "All new calves should be fed with 4L of gold colostrum during the 1st 6hrs of its life" This



Separation of calf from the Dam reduce the probability of Tuberculosis (T.B) in calves.



Calves should be fed with 4litres of gold colostrum within the first 6 hours of their life.



should be done to protect calves from disease for the first 3 months of its life. "Colostrum is the calf passport to life" Hand feeding of new born calves is recommended so that we are sure about the amount of colostrum an individual calf receives.

- Seek the Veterinarian's advice on vaccination.
- Provide calves with freshly cut pasture daily from day one.
- Offer concentrate feed (calf grower) from day 5 onwards to enhance growth.

Colostrum Pasteurization for Calves

The Dairy Industry in Fiji intends to reduce the occurrence of Tuberculosis, increase the survival rate of heifer calves and minimise exposure to Tuberculosis by using two simple but effective steps:

- Removing calves at birth.
- Heat treatment of colostrum and milk.

Heat Treatment

Can be done using an electric water heating urn and stainless-steel pot, can or a large pot of water instead of an urn. Surplus colostrum can be kept refrigerated for several days, frozen at 2litres at a time in a clean new plastic bag. When new calf is born, stored colostrum is ready in the size needed

for a single feed.

Electric Water Heating Urn

- Fill the urn with water and bring to temperature of around 75°C.
- Place a stainless pot/can with 2 litres of colostrum inside it for 30 minutes. Use a thermometer to check the colostrum so that it doesn't heat above 60°C, as this will affect the level of antibodies and will make it thick and hard to drink.
- Add cold water to the urn if the temperature starts to go above 60°C. Allow colostrum to cool until it is just warm enough for the calf to drink (about 35-38°C).

Large Pot of Water

- Instead of an urn a large pot of water can be used and heated on a gas cooker/fire.
- Place a stainless pot/can with 2 litres of colostrum inside it for 30 minutes.
- Use a thermometer to check the colostrum so that it doesn't heat above 60°C as this will affect the level of antibodies and will make it thick and hard to drink. Add cold water to the urn if the temperature starts to go above 60°C. Allow colostrum to cool until it is just warm enough for the calf to drink (about 35-38°C).

Remember: All new calves should be fed with 4L of gold colostrum during the first 6 hours of its life.



Electric Urn for heating of colostrum and milk.



Thermometer for measuring temperature.



Pasteurised colostrum is given to new born calf.